CLAIMS

 An acyloxyacetic acid polymer represented by the general formula (1):

$$R^{1}_{3}CCO - \left(OCH_{2}CO\right)_{n} OR^{2}$$
 (1)

wherein R^1 and R^2 are each independently a hydrogen atom or a linear or branched lower alkyl group; and n is an integer of not less than 5.

- 2. An acyloxyacetic acid polymer according to claim 1, wherein the acyloxyacetic acid polymer is produced by condensing an acyloxyacetic acid derivative.
- 3. An acyloxyacetic acid polymer according to claim 2, wherein the condensation of the acyloxyacetic acid derivative is conducted under heating.
- 4. An acyloxyacetic acid polymer according to any one of claims 2 to 3, wherein the acyloxyacetic acid derivative is produced by reacting a formaldehyde compound, carbon monoxide, and an organocarboxylic acid or a derivative thereof, with each other in the presence of an acid catalyst.
- 5. A process for producing an acyloxyacetic acid polymer represented by the general formula (1):

$$R^{1}_{3}CCO - \left(OCH_{2}CO\right)_{n} OR^{2}$$
 (1)

wherein R^1 and R^2 are each independently a hydrogen atom or a linear or branched lower alkyl group; and n is an integer of not less than 5, said process comprising:

reacting a formaldehyde compound, carbon monoxide, and an organocarboxylic acid or a derivative thereof, with each other in the presence of an acid catalyst to obtain an acyloxyacetic acid derivative; and

condensing the acyloxyacetic acid derivative.

6. A process according to claim 5, wherein the acid catalyst is a sulfonic acid type cation exchange resin previously washed with an acid.